



Published in final edited form as:

*J Environ Health*. 2013 October ; 76(3): 46–47.

## The Emergency Response Program at the Agency for Toxic Substances and Disease Registry

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### Abstract

As part of our continuing effort to highlight innovative approaches to improving the health and environment of communities, the Journal is pleased to publish a bimonthly column from the U.S. Agency for Toxic Substances and Disease Registry (ATSDR). The ATSDR, based in Atlanta, Georgia, is a federal public health agency of the U.S. Department of Health and Human Services and shares a common office of the Director with the National Center for Environmental Health at the Centers for Disease Control and Prevention (CDC). ATSDR serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances. The purpose of this column is to inform readers of ATSDR's activities and initiatives to better understand the relationship between exposure to hazardous substances in the environment and their impact on human health and how to protect public health. We believe that the column will provide a valuable resource to our readership by helping to make known the considerable resources and expertise that ATSDR has available to assist communities, states, and others to assure good environmental health practice for all is served.

### Who We Are

The Emergency Response Program at the Agency for Toxic Substances and Disease Registry (ATSDR) is staffed by a group of trained emergency response coordinators (ERCs) with knowledge and experience to address acute release of hazardous materials. These ERCs, located within the Division of Toxicology and Human Health Sciences, often work with the Division of Community Health Investigation staff who are colocated at U.S. Environmental Protection Agency (U.S. EPA) regional offices. The Emergency Response Program provides support and collaboration with other federal agencies and state and local authorities to develop the appropriate public health response in the event of acute release of hazardous materials.

### What We Do

The ATSDR Emergency Response Program has had significant participation in a number of high visibility national activities, including the 2001 anthrax response, the 2003 Columbia

orbiter disaster, and the Graniteville train derailment and Hurricane Katrina, both occurring in 2005. Program members participated in the Deepwater Horizon oil spill response by developing an on-site program for state public health officials. Other actions included rapid data review and evaluation, formulation of sampling plans, and the development of numerous fact sheets for the general public, medical professionals, and state and local entities. Substances often addressed in previous consultations include mercury, pesticides, heavy metals, arsenic, various volatile organic compounds, and lead. More recently, the program provided data review and evaluation to the Arkansas Department of Health for air sampling associated with the Mayflower Pipeline oil spill in March 2013.

Many acute exposure situations develop as a result of train derailments, warehouse fires, and other unforeseen accidents. These exposure situations release hazardous materials into the air or water systems, endangering community members. Reference values outlined by the ATSDR minimal risk levels ([www.atsdr.cdc.gov/mrls/mrllist.asp](http://www.atsdr.cdc.gov/mrls/mrllist.asp)) or the U.S. EPA Integrated Risk Information System ([www.epa.gov/IRIS/](http://www.epa.gov/IRIS/)) program are used to assess these hazards. Other guidance values can include U.S. EPA acute exposure guideline levels ([www.epa.gov/oppt/aegl/](http://www.epa.gov/oppt/aegl/)), National Institute for Occupational Safety and Health–recommended exposure limits ([www.cdc.gov/niosh/npg/](http://www.cdc.gov/niosh/npg/)), or American Conference of Governmental Industrial Hygienists’ emergency response planning guides. These reference values provide guidance for managing potential environmental exposure and implementing actions such as evacuation or shelter in place. When such guidance values are not available, then reference values must be developed by ATSDR from published literature sources in a timely manner to be useful to the responders on the ground. The public health action plans and impacts to the community must be communicated to community members through meetings, fact sheets, and other media. The ATSDR Emergency Response Program can support local officials in communication activities through technical support, draft documents, and on-site support as needed.

The ATSDR Emergency Response Program assists in the development of site safety plans, the assessment of environmental monitoring data, the development of sampling plans, and the development of fact sheets and other communication tools for an incident. The program can provide recommendations on personal protective equipment, evacuation and reentry advice, and contingency planning. The program provides reach-back capabilities to draw on expertise within the agency, including physicians, toxicologists, chemists, environmental scientists, and other specialties. All emergency response coordinators are hazardous waste operations and emergency response (HAZWOPER) field qualified and can respond to a situation on site if requested. HAZWOPER training includes initial 40-hour training for cleanup activities and an annual eight-hour refresher training to retain certification.

## ATSDR Resources

Safely and effectively managing hazardous material exposure incidents can be challenging, especially considering the rarity of such events for individual medical personnel. The Managing Hazardous Materials Incidents series was developed to provide emergency medical services personnel and hospital emergency departments with the necessary guidance to plan for, and improve their ability to respond to, incidents that involve human exposure to

hazardous materials. The guidelines inform emergency personnel how to appropriately decontaminate, treat, and recommend follow-up care to exposed persons, as well as take measures to protect themselves. These guidelines can be found in three volumes at [www.atsdr.cdc.gov/mhmi/index.asp](http://www.atsdr.cdc.gov/mhmi/index.asp). *Volume I—Emergency Medical Services: A Planning Guide for the Management of Contaminated Patients* and *Volume II—Hospital Emergency Departments: A Planning Guide for the Management of Contaminated Patients* are planning guides to assist first responders and hospital emergency department personnel in planning for incidents that involve hazardous materials. *Volume III—Medical Management Guidelines for Acute Chemical Exposures* is a guide for health care professionals who treat persons who have been exposed to hazardous materials.

## Support From the Centers for Disease Control and Prevention (CDC)

After state and local resources are exhausted in a response situation, federal resources can be activated to provide the additional means necessary to protect lives and property. ATSDR and CDC support such federal actions in response through the National Response Framework ([www.fema.gov/national-response-framework](http://www.fema.gov/national-response-framework)), which is organized by activity type into emergency support functions (ESFs).

The ATSDR Emergency Response Program has the unique role of supporting the Department of Health and Human Services for medical services (ESF #8) and supporting the U.S. EPA for hazardous materials (ESF #10). In addition to these two highly relevant ESFs, ATSDR ERCs have filled various roles within the National Incident Management System during declared federal disasters with the active participation of ATSDR/CDC.

## The National Response Team (NRT) Activities

The NRT ([www.nrt.org/](http://www.nrt.org/)) coordinates the federal response to oil and hazardous pollution incidents. This NRT is made up of 15 federal departments and agencies. The ATSDR Emergency Response Program assists in representing the Department of Health and Human Services on the NRT and the working committees of Preparedness, Response, and Science and Technology. The NRT supports the regional response teams and federal on-scene coordinators in addressing policy and programmatic issues for federal response situations. The participation of the ATSDR Emergency Response Program members ensures a strong viable public health component to environmental response planning. ATSDR routinely provides the on-scene coordinator, managing a response with assessment of environmental data and specific recommendations for community actions such as evacuation or shelter in place.

The ATSDR Emergency Response Program assists the CDC 24-hour Emergency Operations Center in responding to requests for rapidly needed information concerning chemical spill response. The ATSDR Emergency Response Program operates 24/7 with an emergency responder duty officer on a weekly shift. The ATSDR duty officer can be reached through the CDC Emergency Operations Center (770-488-7100).

## Biography



James Holler, PhD

### Editor's Note

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The conclusions of this article are those of the author(s) and do not necessarily represent the views of ATSDR, CDC, or the U.S. Department of Health and Human Services.

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